

REMARKS

In response to the outstanding office action, Applicants cancelled claim 58, amended claims 37, 59, 61, 63, 64, 78, 80-85, 93, 95-97 and 99, and added new claim 100. Claim 37 has been amended to recite a polymer having the formula $D-B-[O-(A-O)_n-B]_m-D$, also recited in cancelled claim 58. Applicants present claims 37-50, 52-57, and 59-100 for examination. Support for the claim amendments is found in the specification as filed, including paragraphs [0058]-[0059] and [0071]-[0076] of the corresponding published U.S. patent application publication US 2005/0196449A1 (published September 8, 2005). No new matter is added.

The Examiner rejected claims 37, 40-50, 52, 54-57, 66-69, 71-84, and 93-99 under 35 U.S.C. §103(a) as being unpatentable over Smith (U.S. 5,888,930). As amended, claims 37, 40-50, 52, 54-57, 66-69, 71-84, and 93-99 cover compositions comprising a polymer having the formula $D-B-[O-(A-O)_n-B]_m-D$, in which O is a first oligomeric segment, B is a first coupling segment, A is a second coupling segment, D is a polyfluoro oligomeric group, m is from one to 20, and n is from zero to 20. Smith does not disclose or render obvious compositions comprising the claimed polymers. Instead, Smith describes porous beads having very specific pore structures formed by precipitation methods that require certain specific combinations of solvents, non-solvent liquids and polymers (e.g., Smith at col. 3, lines 6-67; col. 5, lines 13-27).¹ Smith notably fails to disclose how to form the compositions covered by claims 37, 40-50, 52, 54-57, 66-69, 71-84, and 93-99. Even if one skilled in the art wanted to make the claimed compositions, Smith does not disclose how to make polymers having the formula $D-B-[O-(A-O)_n-B]_m-D$. Nor has the Examiner provided any basis for one skilled in the art to modify the polymers of Smith to produce the claimed compositions. Reconsideration and withdrawal of this rejection is requested.

¹ According to Smith, "[i]n order to achieve the continuously-grated pore structure of the beads of the present invention, the polymer, its solvent and the precipitation bath must all be specified" (Smith at col. 3, lines 49-51, emphasis provided); the solvent "must dissolve the polymer and be miscible with the liquid, typically water, used for precipitation" (Smith at col. 3, lines 3-5); the polymer "must be soluble in a suitable solvent and insoluble in a liquid that is miscible with the solvent (Smith at col. 2, line 67 – col. 3, line 1); the rate of solvent exchange with the liquid must be kept slow following a rapid initial precipitation (Smith at col. 3, lines 8-10); and the polymer solution may only contain a liquid nonsolvent in amounts "that the polymer does not begin to precipitate, but remains completely dissolved" (Smith at col. 4, lines 38-42).

The Examiner rejected claims 37-50 and 52-99 under 35 U.S.C. §103(a) as being unpatentable over Mangin (WO01/66016). As amended, claims 37-50, and 52-99 cover compositions comprising a polymer having the formula $D-B-[O-(A-O)_n-B]_m-D$, in which O is a first oligomeric segment, B is a first coupling segment, A is a second coupling segment, D is a polyfluoro oligomeric group, m is from one to 20, and n is from zero to 20. Mangin does not disclose or render obvious compositions containing these polymers. Mangin discloses embolic particles that “can be made of any material known in the art” (Mangin at page 4, line 28), including polymers listed at page 6, lines 18-30.² The Examiner has not described any portion of Mangin that allegedly discloses polymers having the formula $D-B-[O-(A-O)_n-B]_m-D$, as described in cancelled claim 58 and amended claim 37.³ See MPEP 2142 (“rejections on obviousness cannot be sustained with mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness”). Nor does the Examiner provide any basis for one skilled in the art to modify polymers disclosed in Mangin to form the compositions covered by claims 37-50 and 52-99. Accordingly, the Examiner has failed to meet the legal standard for establishing a *prima facie* case for obviousness regarding how Mangin discloses polymers having the formula $D-B-[O-(A-O)_n-B]_m-D$, as recited in amended claim 37 and cancelled claim 58. Even if one skilled in the art attempted to make the claimed compositions based on Mangin, the result would not have been the compositions covered by claims 37-50 and 52-99. Applicants request reconsideration and withdrawal of this rejection.

Claims 37-50, 52-57, 67, 71, 72, 74-84, 95, 96 and 99 are rejected on the ground of nonstatutory obviousness-type double patenting as allegedly being unpatentable over claims 1-43 of U.S. Patent 7,449,236. Applicants request reconsideration and withdrawal of this rejection in

² Mangin discloses a particle that has voids presented within the particle as well as on the surface, where the voids within the particle have both relatively large sizes and relatively small sizes and the voids on the surface also have both relatively large sizes and relatively small sizes (See, e.g., Mangin, page 7, lines 30-33, FIG. A, and FIG. B).

³ The Examiner merely states that “Mangin teaches an embolic particle comprising a polymer selected from polyvinyl alcohol (PVA), polylactic acid, alginate (polysaccharide), etc (page 4, lines 5-7 and 29-30, page 5 lines 18-22)” (Office Action at page 3). However, none of these portions of Mangin describe the polymers having the formula having the formula $D-B-[O-(A-O)_n-B]_m-D$, as described herein.

light of the claim amendments above. Alternatively, Applicants request that this rejection be held in abeyance until the pending claims are allowable over the prior art.

Claims 37, 40, 43-50, 52-57, 66-70, 73-84, 93-95 and 97-99 are rejected on the ground of nonstatutory obviousness-type double patenting as allegedly being unpatentable over claims 1-12 and 14 of U.S. Patent 7,462,366. Applicants request reconsideration and withdrawal of this rejection in light of the claim amendments above. Alternatively, Applicants request that this rejection be held in abeyance until the pending claims are allowable over the prior art.

Claims 37, 40, 41, 43-50, 52-59, 63, 64, 68, 72-88, 90, 91 and 95-99 are rejected on the ground of nonstatutory obviousness-type double patenting as allegedly being unpatentable over claims 1, 2, 17 and 36-41 of U.S. Patent 7,311,861. Applicants request reconsideration and withdrawal of this rejection in light of the claim amendments above. Alternatively, Applicants request that this rejection be held in abeyance until the pending claims are allowable over the prior art.

According to the Examiner, claim 31 of co-pending application 10/651,475, claims 1 and 3 of co-pending application 10/700,970, claims 1-3, 12, 21-23, 25, 32, 33, 47 and 54 of copending application 10/215,594 and claims 1-3, 5, 7, 11-13, 15, 19, 23 and 30 of co-pending application 12/235,978 “appear to warrant a provisional obviousness type double patenting rejection” (Office Action at page 7). If, by this statement, the Examiner is making these provisional obviousness-type double patenting rejections, Applicants request reconsideration and withdrawal of such rejections in light of the claim amendments above. Alternatively, Applicants request that such rejections be held in abeyance until the pending claims are allowable over the prior art.

In view of the foregoing, Applicants believe the application is in condition for allowance.

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Respectfully submitted,

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